Rev.8/2008

THE FUTURE IS NOW:

Chapter 5 of the ELPS Strategic Plan

CONTINUING THE VISION FOR

TECHNOLOGY AND TELECOMMUNICATIONS

The East Longmeadow Public Schools
Technology Plan

EAST LONGMEADOW
PUBLIC SCHOOLS
DISTRICT 087

www.eastlongmeadow.org/schools/schools.htm

East Longmeadow Public Schools Technology Plan

2006-2011

Benchmark 1 - Commitment to a Clear Vision and Mission **Statement**

STRATEGIC PLANNING PREFACE

Strategic planning provides a framework for excellence within an organization. It is driven from an understanding of future needs and opportunities and enables an organization to concentrate limited resources on mutually determined goals. Strategic planning recognizes that change occurs within a much larger context. Organizational capacity is expanded through looking at the system as a whole rather than as separate parts.

Strategic planning is an ongoing process, not a one-shot event. It includes a continuous evaluation of goals and means and is flexible enough to adapt to unanticipated changes. Strategic planning is an inclusive process. Stakeholders, those with a stake or interest in the organization, have an active role in the planning process.

A strategic plan targets proactive initiatives rather than reactive responses. It focuses on structure, not blame, and builds upon successes and initiatives already in place. A strategic plan is a living document which weaves together the individual strands of an organization into a unified whole.

OUR PLANNING PROCESS

In September of 2002, the East Longmeadow school committee, school staff members and community began a strategic planning process. The initial year of 2002 began with teachers, support staff, parents, students, community, administrators and school committee meeting in numerous committee meetings to examine the past, present, and future. Additionally, we began to identify commonly shared values, principles and beliefs concerning the education of our children. Data generated from these meetings provided a foundation for the district strategic plan

In July of 2003, the East Longmeadow School System under that guidance of the school committee drafted a mission statement, core principles, guiding belief statements about all students, and ten (10) strategic district goals. Since July of 2003, ongoing meetings with internal committees composed of teachers, administrators, school committee members and parents have met regularly to refine the drafted strategic goals and district wide strategic plan.

This strategic plan is consistent with current programs, teaching pedagogy and new initiatives. Goals and objectives from site-based school improvement plans, grant programs, and school councils were incorporated into the strategic plan. Individuals and groups from the community were invited to share their reactions and ideas with the drafting process. Although the plan was

written by steering committee members, the goals, future positions, and strategies reflect the priorities of many different stakeholder groups within our schools and community.

As a living document, this strategic plan will continue to undergo change. Its value lies in building a foundation, establishing direction, and providing a framework for decisions within the East Longmeadow Public School District.

IMPLEMENTATION PLAN

In order for the strategic plan to be effective, it must become an integral part of the regular operation of local schools. A planning cycle was developed to ensure coordination between building-level school improvement plans, district-wide initiatives, and the budget process. The cycle is ongoing. Although priorities may change in response to unknown circumstances, a carefully defined planning cycle is an essential part the continuous improvement process.

Although the overall responsibility for achieving goals outlined in the strategic plan lies with the school committee, the Superintendent of Schools is responsible for directing the actual implementation of the plan. Priorities are divided into three levels: district, building, and individual. These levels are described in greater detail below.

District

Each strategic district goal serves as a guide across the community in decision-making for the school system. Some of the action steps will be addressed individually while other tasks will become part of the charge of existing councils or district-wide task groups. Accountability for achievement of action steps lies with the administrative team and school committee.

Site-Based

Building level initiatives are the responsibility of the building principal in collaboration with individuals and groups within the building. In recognition of the uniqueness of each school within our district, the emphasis placed on these priorities will vary widely depending upon the specific needs and site-based school improvement plan in each building.

Individual

Each member of the school community is strongly encouraged to identify one or more personal goals from this strategic goal list. Support for individual initiatives will be provided at the building and district levels. Existing programs (e.g., professional development workshops, study groups, research and development study grants) will be used to provide support.

DISTRICT MISSION

The East Longmeadow Public School District operates from a set of beliefs established in 1998, and an umbrella mission statement that permeates all endeavors and initiatives of the school district. Our district's mission statement states:

Our mission in the East Longmeadow Public

Schools is to promote

Achievement and Accountability
in all endeavors as we educate
today for the challenges of tomorrow.

DISTRICT BELIEF STATEMENTS

The East Longmeadow Public Schools recognize education to be the individual's most unique and valuable asset; therefore, the school district and community have adopted the following nine basic principles of philosophy, called belief statements, as criteria for determining the educational program for the East Longmeadow youth. We Believe:

1. All students can learn and can be successful.
2. All staff, students, and parents deserve respect and must demonstrate respect for human differences.
3. Learning must be the focus of all student experiences.
4. Schools function best through shared decision-making.
5. Every child's full potential should be explored, directed and challenged.
6. Moral and ethical behavior should be practiced, reinforced, and expected from all students, staff, and parents.
7. Schools, parents, students, and community share the responsibility for the education of students.
8. Schools must provide a curriculum conducive to developing the whole child towards life-long learning.
9. All students and staff have the right to a safe environment.

EAST LONGMEADOW PUBLIC SCHOOLS

Guiding Principles

Integrity has no age.

Honesty has no gender.

Character has no color.

Caring has no language.

Connecting has no handicap.

Compassion has no height or weight.

Relationships have no degrees or Certificates.

adopted

July 1, 1998

Goals and Strategies

The charge of the District Technology Committee is to seek to continually improve the technology resources available to the students, educators, and staff of the district.

With the pace of evolution in technology far exceeding most facets of the education sector, it is important to continuously evaluate technology trends. The focus on technology in the East Longmeadow Public Schools is continuous improvement using proven technologies. Given the cost of most technologies implementation, fiscal and time, it is important to select technology initiatives with care.

The East Longmeadow Public Schools have ten district-wide strategic goals. Six of these system-wide strategic goals apply to technology for students and staff:

GOAL1: FOSTER A CLIMATE OF COMMUNICATION AND COLLABORATION THROUGHOUT THE DISTRICT AND COMMUNITY.

GOAL2: MAINTAIN A FAVORABLE STUDENT-STAFF RATIO AND PROVIDE A WELL-BALANCED, APPROPRIATE CURRICULUM FOR ALL STUDENTS.

GOAL 3: IMPROVE THE QUALITY AND QUANTITY OF PROFESSIONAL DEVELOPMENT FOR ALL EMPLOYEES AND PROMOTE INDIVIDUAL ACCOUNTABILITY FOR ALL STAFF.

GOAL 5: MANAGE ALL LEVELS OF THE EDUCATIONAL SYSTEM TO BE PRODUCTIVE, CREATIVE, EFFICIENT, PROGRESSIVE, AND ACCOUNTABLE.

GOAL 6: ENCOURAGE PARENTS TO BE PARTNERS IN THE EDUCATION OF OUR CHILDREN.

GOAL 7: ENCOURAGE AND DEVELOP PARTNERSHIPS WITH LOCAL BUSINESSES AND COMMUNITY ORGANIZATIONS.

The goals of the East Longmeadow Public Schools, through the work of our district Technology Committee for the period of 2006 through 2011 include:

a) Increasing the usage of the internal network by both staff and students to take advantage of the flexibility a network provides in accessing application tools, information sharing and exchange, and data storage.

b) Increase the use of the computer infrastructure to gain access to learning tools that can benefit all staff and students.

c) Increase the awareness by staff and students of the Internet as a source for information, for learning tools, for research, and for all forms of communication.

d) Implement tools to increase the level of communication between students, teachers, and parents. Enable the sharing of student related educational data such as assignments, progress reports, and grades. Provide open and easy to use communication links between all parties.

e) Increase the district communication with the community as a whole.

f) Increase the internal and external integration of the district processes, information, and communications.

g) Raise the level of teacher technology knowledge to meet MA DOE standards.

h) Raise the Level of technology usage by teachers to meet MA DOE recommendations within and outside the classroom.

i) Raise the level of grades 5-8 students' computer knowledge to where students are able to show proficiency for their grade appropriate Massachusetts Instructional Technology Standards as determined by an average rating of 3 *or* higher on the annually administered student survey (See Appendix B).

j) Maintain or improve the current infrastructure having computers, servers, and networks performing at a 99% uptime rate. Maintain the infrastructure at a level of performance equal to the capabilities of the installed equipment.

A2. Strategies for the period of 2006 - 2011

Project 1. - Increase the purchase and use of new computers to the whole district, replacing 7-year old computers with low processors that cannot run today's software.

Project 2. – Increase the purchase and use of new printers to the whole campus, replacing the ink jet printers that are problematic and their cost per printed page is high due to expensive replacement cartridges.

Project 3 - Implement e-mail accounts for all support staff. Prior to this, just instructional staff and administration received e-mail accounts on our network

Project 4 - Implement appropriate software applications in the classroom. The Technology Committee has created a task to review the software requests of teachers in grade levels and then recommend the implementation priority of the selections. The priorities will be based on the perceived benefit, the quantity of students benefiting, the deficiency, if any, in subject area

the application addresses, and the cost of the application.

Project 5 - Continue to provide training to East Longmeadow Public Schools staff in the use of computers. The training is based on the MA DOE Teacher Standards and Star chart (Appendix A).

Project 6 - Improve the district and individual schools' web pages to provide more information on current issues and events to parents and citizens.

District Technology Team

The District Technology Team is comprised of members of the teaching staff, support staff, and administration of our five schools including Meadow Brook Elementary School, Mapleshade Elementary School, Mountain View Elementary School, Birchland Park Middle School, and East Longmeadow High School.

E.L.P.S. Technology Committee Team Members:

Diane Gougen, Mountain View Elementary
Sean Leahy, District Technician
Gilbert Gonsalves, E.L. High School
Judy Rosso, Meadow Brook Elementary
Kathleen Hill, Birchland Park Middle School
Jeff Bohonowitcz, Mapleshade Elementary
Larry Humason, Birchland Park Middle School
Leonard Palmer, Lesley University, and retired teacher
Judy Fletcher, Meadow Brook Elementary
Pauline Celetti, District Technician
Carrie Wallace, Mountain View Elementary
Richard Freccero, E.L. High School
Paul Plummer, Birchland Park Middle School
Carol Toth, East Longmeadow High School
Brenda Houle, Mapleshade Elementary
Cynthia Walsh, E.L. High School
Ed Costa, Superintendent

Budget

The district budget for technology is $325,000.00 for technology. This is a combination of operational budgets, capital budgets from our town, and grants from the Department of Education.

Evaluation

The charge of the District Technology Committee calls for this Committee to evaluate and provide expert guidance for, among other things, the purchases of technology.

Before new programs of any type of technology are implemented, there are mandated expenditures required to maintain the current infrastructure. Significant dollars are required for annual licenses for server and desktop applications and operating systems. The replenishment of desktop systems on a six-year cycle will take a significant annual commitment. Expenditures for repair costs such as parts and labor are ever increasing with a growing infrastructure. With both current installed district wide applications and classroom learning applications requiring annual maintenance fees, there are many fixed costs to be absorbed into the annual technology budget.

With limited fiscal resources available to support public education, the Technology Committee will be called upon to assist with the determination of where funds should be expended. To make decisions, members will review the effectiveness of different technology options with other teachers, bring their own perspective to the decision, and weigh the cost of the program against competing programs. Furthermore, this Committee will ensure that technology expenditures are channeled to programs that will improve the educational experience of East Longmeadow Public Schools students.

D2. Evaluation Process:
The District Technology Committee, in conjunction with the Superintendent of Schools and principals of the five schools, will be responsible for evaluating, on an annual basis, the progress the district has made in achieving its technology goals. A primary tool for measurement will be the Massachusetts Department of Education (DOE) Technology Plan Guidelines survey including the TSAT, ASAT and Professional Development Surveys in our district. These surveys provide feedback on the DOE Technology Standards and how the teachers are progressing in meeting those standards. Data from these surveys measure the level of progress towards achieving the goals will be illustrated numerically. The areas where the Committee has concentrated the technology implementations should be reflected in the corresponding scores for the teachers and technology benchmarks. If the goals of the implementations are not evidenced in survey results, it will be up to the Committee and the district administrators to revise the areas where the effort has been made and either change the effort or alter the course to another technology initiative.

Benchmark 2 - Technology Integration

Teacher and Student Use of Technology

Technology use outside the classroom
East Longmeadow Public Schools teachers use technology everyday. Technology skills are part of the employment interview from the very start. Uses of E-Mail, word processing and calendaring are all basics that are now required at employment time. Teachers must demonstrate their skills to the principal who hires the staff member. Additionally, we have evidence through surveys and product documents that our teachers use technology for out of classroom events such as lesson planning, communications, and internet site educational searches.

Technology use inside the classroom
East Longmeadow Public Schools teachers use technology with students inside the classroom. Our TSAT and ASAT documents reveal that over 90% of our teachers use technology for daily lessons including research, multimedia, data analysis, and collaboration.

Grades 5-8 technology proficiency
All students in East Longmeadow Public Schools enroll in computer classes starting in elementary school. In addition to the Massachusetts Recommended Pre-K-12 Instructional Technology Standards, the East Longmeadow Public Schools Technology standards are met for each grade level (Appendix B). Additionally, advanced instructional technology courses are available to students in grades 6-12 for additional study in technology.

Teacher technology proficiency
Over 90% of our teachers, district-wide, are proficient. The use of the TSAT in all five schools allows us to monitor and diagnose professional development courses that are instrumental in the success of our technology instructional strategies. Additionally, our hiring process now allows us to recruit teachers with a solid base of technology skills. This allows us to start professional development at a much more in-depth level, rather than at the very basic beginning level of technology.

CIPA compliant acceptable Internet use policy
The district has an acceptable use policy that each student and parents of the student are required to sign at the beginning of each school year. The policy covers what is allowable for computer and network use by students. Abuses of these policies can result in the loss of computer privileges at the discretion of the Principal of the school.

As required by multiple agencies of the Federal and State governments, East Longmeadow Public Schools has a CIPA compliant Internet filtering process in

place. Two products perform the filtering. The software and hardware filters and firewall limit unauthorized internet access to sites. In addition, sites are added to the prohibited list manually as needed.

Staffing

Technology Director:

East Longmeadow Public Schools does not hire a full-time technology director by choice. Instead, the superintendent of schools serves as the district technology liaison to five instructional technology assistants. The superintendent, who serves as the state technology director for the superintendent's association (M.A.S.S.), works with the five tech assistants- who are each located one per school.

Technical Support for computers:

East Longmeadow Public Schools has hired two full-time technicians to service computers across the school district. The two technicians do a rotation so that they are each in school buildings twice a week for a full half day at a time. When necessary, technical consultant firms are engaged to provide specialized skill levels.

Benchmark 3 - Technology Professional Development

Staff professional development

Over the past several years the staff and teachers of East Longmeadow Public Schools have had the opportunity to attend many computer technology classes that were taught by our staff members with expertise and by our technology assistants. Typically these were offered after school for two hours or more per session. The focus of the classes was on helping the attendees to learn the technology standards set by the Massachusetts Department of Education.

Beginning in 2005, we started using the STAR chart to assess and develop technology offerings in our school district. Time for monthly technology education sessions have been built into the district meeting schedule. The goal of the professional development has been to have 85% of district staff participate in some form of high-quality technology professional development and become proficient. As of this year, we have reached this benchmark. Beginning in September, 2006, ELPS started using E-Learning, our on-line web professional development, with several vendors providing high quality professional development to staff.

Sustaining Professional Development

The district is committed to offering high quality professional development related to technology on an annual basis. Annually the Massachusetts Technology Self Assessment Tool, and the administrative assessment tool ASAT will be administered to the teachers and administrators. Results are used to assess staff and inform the professional development planning process so that technology training goals will remain matched to the needs of the faculty and administrators.

Assessment of District and Teacher's Needs

To assess the progress of the district in meeting the goals mentioned above, we administer the TSAT, ASAT as annual self-assessments by the teachers and administrators using the Massachusetts Technology Self Assessment Tools. The spring 2004 survey results serve as the first baseline. Since that time, we have reached new and increased percentages of all staff who are acquiring technology proficiency.

Benchmark 4 - Accessibility of Technology

A. ***Students per Instructional Computer***

Instructional computers are defined those that are accessible to students. Removed from the calculation are computers that are in administrative offices or any other areas where students would not normally gain access to login and use a computer.

In East Longmeadow Public Schools there currently is a ratio of 2.75 students for every instructional computer. Every classroom in all five buildings has at least one computer and most have several 100 Megabit (MB) network connections. All computers are loaded with a standard suite of applications when deployed. The applications include Microsoft Office, which includes Word for word processing, Access for database tools, PowerPoint for development of presentations, Excel for spreadsheets, and Internet Explorer as the Internet browser. Other applications included on all computers include Adobe Reader, Norton Anti-Virus software, and standard utilities that are provided with Microsoft operating systems. Depending upon the location of the computer there are applications that are loaded to facilitate instruction in that department.

Additionally, each of the five schools have dedicated computer labs of 25 or more computers in which teachers schedule their classes for use. The schools also schedule dedicated technology courses in these labs. Each school library has instructional computers for library search functions and research on the internet.

Below is a graph demonstrating the number of computers per school building:

Meadowbrook School

<400Mhz:	13	10%
400Mhz / 64Mb RAM:	66	*49%*
550Mhz / 128Mb RAM:	27	*20%*
800Mhz / 128Mb RAM:	27	*20%*
Total Computers in School:	**133**	

Mountainview School

400Mhz / 64Mb RAM:	43	*43%*

550Mhz / 128Mb RAM:	14	*14%*
800Mhz / 128Mb RAM:	13	*13%*
2400Mhx / 512Mb RAM:	28	*30%*
Total Computers in School:	**98**	

Mapleshade School

<400Mhz:	7	8%
400Mhz / 64Mb RAM:	48	*53%*
550Mhz / 128Mb RAM:	14	*15%*
800Mhz / 128Mb RAM:	14	*15%*
1400Mhz / 256Mb RAM:	5	*6%*
Total Computers in School:	**88**	

Birchland Park School

550Mhz / 128Mb RAM:	300	*82%*
667Mhz / 128Mb RAM:	50	*14%*
700Mhz / 128Mb RAM:	15	*4%*
Total Computers in School:	**365**	

High School

<400Mhz:	45	14%
400Mhz / 64Mb RAM:	151	*46%*
550Mhz / 128Mb RAM:	48	*15%*
800Mhz / 128Mb RAM:	51	*15%*
2400Mhx / 512Mb RAM:	33	*11%*
Total Computers in School:	**328**	

Computer replacement cycle:
The East Longmeadow Public Schools has a replacement cycle for computers of six years. Funding for this annual expense is provided from the local budget and town capital budget, which is occasionally augmented from external grant resources.

B. Technical Support Classroom technical support

Each school in East Longmeadow Public Schools has a technology specialist that provides timely in-classroom technical support. At the current time we are replacing one third of all computers in every school. Desktop computers with a moderate variety of software are the norm. As future technologies are implemented the variable nature of the classroom will expand. The implementation strategies of new initiatives will incorporate training of teachers and staff so they are comfortable in managing the new capabilities.

B2. ***Network Administration***

The Town of East Longmeadow employs an IT director who provides network support to the East Longmeadow Public Schools.

B3. Technical Support of computers

East Longmeadow Public Schools employs two certified technicians to support the hardware and physical technology needs of the school district.

Benchmark 5- Infrastructure for Connectivity

A. Internet Access

The East Longmeadow Public School district provides Internet connectivity to all computers that are installed. The LAN/WAN is integral to the installation of all computers and the Internet is integral to the LAN/WAN. Every staff member is provided a login. With the login they gain access to the Internet. In the elementary schools, student login is generic and not student specific. In our high school a student specific login is required to gain access to the LAN and the Internet. The use of a login allows for control of a student's access to computing resources and to track abuses of the Acceptable Computer Usage Policy.

Wireless networking is slowly replacing wired classrooms. All computer connections to the LAN are either 10MB or 100MB. With upgrades to the network hardware completed during the summer of 2005 all network ports are 100MB. All classrooms in all buildings of the East Longmeadow Public School district are wired for LAN access.

B. Networking

All LAN network connections are switched 100MB connections. Our middle school and the Town Hall is the head-end backbone for feeding the switches. The district provides a bandwidth of 100MB to every classroom. There are no plans forecasted at this writing to increase the LAN speeds beyond 100MB at the classroom ports.
As of January, 2007, ELPS began acquiring 1000mb network equipment to utilize the Town fiber network.

C. E-Learning Environments

With high performing well maintained computers that connect to high speed LAN, that has a high speed Internet connection, the infrastructure is in place in East Longmeadow Public Schools to use the Internet as an integral part of the educational process. On-Line education and On-Line professional development is an area that our district will be increasing during this year.

Appendix A

Benchmark 6 - Access to the Internet outside of the School Day

A. District Web Site

East Longmeadow Public Schools has an Internet web page, www.eastlongmeadowma.gov . Our web site is always improving and increasing in the amount of information we share with our parents and the citizens of East Longmeadow.

Further development of the web site is part of this on-goingTechnology Plan. See the list of objectives in Benchmark 1.

B. Internet Access outside of School Day

Access to the Internet outside of the school day is provided within the Town of East Longmeadow in a variety of locations and time frames.

First, within the school district time is provided beyond the school day for access to computers and to the Internet. Those students that need to use a computer after school can do so in all five schools' computer labs and in each school's library facility.

Additionally, students at the middle school and high school are provided a late bus run, which leaves the school property approximately one hour after the normal dismissal time of the school. During this time period the Hopkins computer lab and library facility are open for general use to any student that has a computer login account.

C. Directory to Internet Access

Computer access outside of school hours is provided at the Town of East Longmeadow Public Library at 50 Center Square, East Longmeadow. Hours of operation for the library is available on the library web site and on our web site.

Appendixes

Introduction

Welcome to the Massachusetts Technology Self-Assessment Tool.

This technology instrument has been designed for:

1. **Teachers:** to determine their own levels of technology proficiency and to identify personal technology professional development needs.
2. **Schools/Districts:** to assess their professional development needs and to plan professional development activities that will help all teachers become proficient in technology.
3. **The State:** to gather and report data on technology competencies and technology professional development.

Mastery Levels

The TSAT has four mastery levels, as shown in the table below. The table shows the percentage of skills that you should complete in order to move to the next level. Although some levels do not require that you complete all of the skills, you can go back at any time to check off new skills you have learned.

	Technology Operations & Concepts	Ethics and Safety	Teaching & Learning with Technology
Early Technology	100%	100%	100%
Developing Technology	80%	100%	80%
Proficient	80%	100%	80%
Advanced	80%	100%	80%

Using the Technology Self Assessment Tool

If this is the first time you are taking this assessment, you should begin at "Early Technology" (on page 2 of this file). The assessment presents a list of skills with check boxes. Check a skill if you are able to do all of the examples given. You can take the assessment as many times as you wish. When you have mastered a skill level, proceed to the next higher level. For example, if you mastered 100% of the skills in Early Technology, you should begin working on the Developing Technology assessment on page 4.

Additional Information About the TSAT

A Progress Chart showing the progression of skills is included as Appendix A. Appendix B shows how the TSAT is aligned with the Massachusetts Recommended PreK-12 Instructional Technology Standards, the ISTE Technology Standards, and the Massachusetts STaR Chart.

A. Early Technology

I Know How To		Standard 1 – Technology Operations and Concepts
	A1.10	Demonstrate basic skills for using hardware and applications (e.g., start up and shut down computer system and peripherals, open/close a file, start an application and create a document.)
	A1.11	Navigate using scroll bars, arrow keys, special keys, and mouse functionality.
	A1.12	Identify components of a computer system (e.g., Operating system, platform, drives, memory, window). Explain their functions, and use appropriate terminology in speaking about them.
	A1.14	Save/backup and retrieve a file to/from the Desktop, hard drive, and/or floppy disk.
	A1.15	Select a printer and print a document with appropriate orientation within page setup.
	A1.20	Connect the cables and cords correctly such that a computer is functional.
	A1.30	Use basic editing and formatting features of a word processing program (e.g., centering, spacing, fonts and styles, enter and edit text, copy and paste, manipulate fonts, use writing tools and insert clip art.).
	A1.80	Use correct terminology in speaking about Internet communications (e.g., browser, search engine, online).
	A1.81	Access the Internet and identify and use navigation features of browser (e.g., "go," "back," "forward").
	A1.82	Add a Web site to *Favorites* or *Bookmark* it for future reference.
	A1.83	Identify basic elements of a Web site (e.g., URL, hyperlinks, etc.) and use a URL.
	A1.90	Create and send a message using email. Retrieve and read email. Reply to sender and forward an email. Save, print and delete an email.
I Know How To		**Standard 2 – Ethics and Safety**
	A2.10	Apply classroom/lab rules for responsible use of technology.
	A2. 11	Explain and comply with acceptable use policy in your district and describe the consequences.
	A2.20	Explain the importance of sharing technology resources equitably among all students.
	A 2.30	Discuss the basic concept of assistive technologies and Universal Design for Learning (UDL), including portable word processors.
	A2.40	Explain copyrights as applied to technology use in education, the workplace and society.
	A2.41	Follow appropriate licensing and documentation for all software used.
	A2.50	Explain how media and technology can be misused to distort or exaggerate information.

	A2.60	Explain potential problems viruses create and practical methods of prevention (including exercise caution in opening e-mail attachments from unknown sources).
	A2.70	Follow the proper district/school procedures in the event of technical difficulties.
	A2.72	Explain the dangers of chat rooms and other electronic communications such as instant messaging.
	A2.80	Evaluate the proper physical setting for technology use (ergonomics).
I Know How To		**Standard 3 – Teaching & Learning with Technology**
	A3.10	Discuss current research on teaching and learning with technology in order to plan learning environments and experiences.
	A3.11	Use technology to gather curriculum-specific information from CD-ROMs, Web sites and/or automated card catalogue.
	A3.20	Integrate technology into the curriculum of one's subject and/or grade level with assistance of a coach, mentor or other staff member.
	A3.40	Use email to communicate with teachers and other professionals about curriculum content and procedures.
	A3.41	Use word processing to support teaching and learning (e.g., letters home to parents, course syllabi, flyers, worksheets, students' stories, etc.)
	A3.44	Identify personal technology professional development needs.

B. Developing Technology

I Know How To		Standard 1 – Technology Operations and Concepts
	B 1.12	Identify and use basic features of a computer operating system (e.g., format/initialize disks, access information on size and format of a file, create and organize folders on local hard drive and desktop).
	B 1.14	Manage files, to save, locate and organize files on local and remote network spaces.
	B 1.15	Operate peripheral equipment (e.g., scanner, printer, projector).
	B 1.16	Resolve basic technical difficulties (e.g., soft reboot, paper jam, ink cartridge replacement).
	B 1.20	Connect a computer to peripheral devices (e.g., printers), a network outlet, and take proper care of the system.
	B 1.30	Use editing and formatting features (margins, cut and paste, spelling, and page numbers). Insert images (e.g., graphics, clip art) from other files into word-processed documents.
	B 1.31	Create a report or newsletter using word-processing or desktop publishing software.
	B 1.40	Describe the structure and function of spreadsheet (e.g., cells, rows, columns, and formulas) and apply formatting features, reposition columns and rows.
	B 1.41	Create an original spreadsheet, entering simple formulas (various number formats, equations, percentages, exponents).
	B 1.42	Interpret spreadsheet information, and produce simple charts from data.
	B 1.50	Define terms (field, table, record etc.) and functions of a database and use it for simple analysis.
	B 1.60	Create and manipulate graphics using a drawing or painting program (e.g., adjust scale, size, shape).
	B 1.70	Create a simple multimedia presentation (using PowerPoint, KidPix, etc.) and explain the terminology (slide, transition, etc.)
	B 1.80	Differentiate among browser, email program and Internet service provider.
	B 1.82	Organize *Bookmark*s or *Favorites* into folders for future reference.
	B 1.83	Identify and use basic search strategies on the Internet.
	B 1.90	Send an email attachment, open and save on to the desktop.
	B 1.91	Create an address book in an e-mail program.

I Know How To		Standard 2 – Ethics and Safety
	B2.20	Ensure equitable access to technology resources for all students in the class.
	B2.30	Use basic assistive technology resources. For example, change text size or make templates in a word processor, use text-to-speech features, change mouse controls, use on-screen calculators.
	B2.40	Cite electronic sources correctly in accordance with copyright law, explain and model this in the classroom.
	B2.41	Explain and demonstrate ethical and legal behavior in copying/downloading files, applications, and media (Internet).
	B2.42	Ensure responsible uses of technology by students: a. including intellectual property b. copyright laws, c. effective use of resources and d. environmental concerns.
	B2.50	Validate a Web site for authenticity (e.g., find site sponsor, author, date the site was last updated, etc.)
I Know How To		**Standard 3 – Teaching & Learning with Technology**
	B3.10	Design and develop lessons and activities that integrate technology in a variety of instructional settings for all students.
	B3.1 1	Identify and locate technology resources including online curriculum resources (Massachusetts Curriculum Frameworks and/or district curriculum guides) for planning.
	B3.20	Facilitate technology-enhanced lessons that address content standards and student technology standards.
	B3.21	Manage student technology activities to optimize learning with available resources (e.g., in a one-computer classroom, a computer lab, or with portable/wireless technology).
	B3 .23	Use appropriate technology to differentiate instruction (multimedia presentations, concept maps, etc.) for all learners.
	B3.30	Apply technology in assessing student learning of subject matter using a variety of district, school or individual assessment tools and strategies (e.g., TestWiz, grading programs or progress spreadsheets).
	B3. 41	Use application programs to organize curriculum-specific information/data into charts, tables and diagrams (spreadsheets, databases, etc.).
	B3.42	Create multimedia presentations to communicate curriculum content.
	B3 .43	Integrate results of electronic research into classroom instruction, (with proper citations) as appropriate to the grade level.
	B3.44	Locate and enroll in appropriate technology professional development activities offered by the district, online or local college/university.

		C. Proficient
I Know How To		**Standard 1 – Technology Operations and Concepts**
	C1.14	Save (also retrieve, load, and import) documents in different file formats (e.g., RTF, HTML) to facilitate file sharing.
	C1.15	Use a variety of external peripherals (e.g., digital camera, camcorder, CD-RW, scanner) and connect them to a computer.
	C1. 16	Resolve commonly occurring technology problems, and use proper terminology for communicating them (e.g., frozen screen, disk error, printing problems).
	C1. 17	Identify, download and use multimedia, graphic, sound and video files.
	C1.18	Install new software from a variety of sources (e.g., CD, downloads, plug-ins and applications) per district policies.
	C1.41	Use built-in calculating functions in a spreadsheet application.
	C1.42	Customize formatting of charts or graphs created in spreadsheet. Define and use built-in data functions of a spreadsheet such as sort, filter, find.
	C1.50	Perform simple operations in a database (e.g., browse, sort, search, delete, add data, define field formats, etc.).
	C 1.70	Create a multimedia presentation that includes imported sound and graphic files, tables and a design template.
	C 1.83	Demonstrate effective search strategies to locate and retrieve electronic information (e.g., use syntax and "Boolean logic operators- and/or terms" correctly).
	C 1.84	Share links among users via email or posting.
	C1.85	Create a basic Web page.
I Know How To		**Standard 2 – Ethics and Safety**
	C2.30	Use specific assistive technology software (e.g., programs that use pictures/symbols with words, talking word processing, or word prediction).
	C2.72	Address situations where inappropriate sites are accessed, and contact proper district personnel to block such sites.
	C2.80	Demonstrate and teach students the issue of ergonomics (e.g., repetitive stress injuries) and how to use equipment safely.

I Know How To		Standard 3 – Teaching & Learning with Technology
	C3.1 1	Evaluate technology resources, including online resources for accuracy and suitability.
	C3.12	Plan for the management of technology resources within the context of learning activities (schedule use of computer lab, wireless laptops, SmartBoard, etc.).
	C3.20	Use technology to support learner-centered strategies that address all students.
	C3.21	Manage student learning experiences that integrate effective uses of technology to meet a variety of learning styles.
	C3.22	Use the Internet for curriculum development and instruction (e.g. Web Quests, classroom web pages)
	C3.23	Use appropriate technology tools to enhance one's own curriculum, if applicable: projectors, wireless laptops, handhelds, environmental probes, sensors, robotics, dynamic geometric software, and measuring devices.
	C3 .30	Use technology resources to collect and analyze data, interpret results, and communicate findings to improve instructional practice and maximize student learning.
	C3 .31	Identify and evaluate developing technologies as they relate to one's subject area, grade level and student population.
	C3.41	Manipulate data using charting tools and graphic organizers (e.g., concept mapping, and outlining software) to connect ideas and organize information.
	C3.43	Use electronic conferencing tools such as Internet bulletin boards as in VES and MyBPS.
	C3.44	Apply technology professional development activities such as multimedia presentations, Web Quests, lessons in the classroom.

		D. Advanced
I Know How To		**Standard 1 – Technology Operations and Concepts**
	D1.16	Troubleshoot and add new hardware.
	D1. 17	Identify and use methods for transferring, downloading, and converting graphic, sound, and video files. Use different graphic file formats where appropriate (e.g., PICT, TIFF, JPEG).
	D1. 18	Import/export and link data between spreadsheet, databases and other applications, including presentation applications.
	D1.50	Design, create and manipulate an original database.
	D1.85	Create and post a Web page per district policy.
I Know How To		**Standard 2 – Ethics and Safety**
	D2.30	Manage assistive technology equipment and install peripherals for diverse learners (alternative keyboards, voice recognition, and scanners with OCR software).
I Know How To		**Standard 3 – Teaching and Learning with Technology**
	D3.20	Use technology to challenge students to use higher order thinking skills and creativity (e.g., applets and programs that require the application of logic to solve problems).
	D3.22	Develop web pages for instruction and communication.
	D3.23	Use specialized technology tools for problem solving, decision-making, and creativity (e.g., simulation software, environmental probes, computer-aided design, geographic information systems, dynamic geometric software, graphing calculators, art and music composition software).
	D3.31	Routinely and rigorously identify, evaluate, and apply emerging technologies as they relate to teaching and learning.
	D3.41	Combine information from different applications (e.g., a chart imported from a spreadsheet into a word-processed report can be linked to update automatically when the data is changed in the spreadsheet) to enhance/clarify communication of information.
	D3.42	Present information, ideas, and results of work using the most appropriate communications technologies (e.g., multimedia presentations, Web pages, digital videotapes, desktop-published documents).
	D3.43	Use electronic communications to enhance teaching and learning, (e.g. listserv, electronic classrooms, and interactive video).
	D3.44	Design and deliver effective staff development in technology and its integration in curriculum.

TECHNOLOGY SELF-ASSESSMENT TOOL

Appendix A – Technology Self-Assessment Progress Chart

Standard 1 - Technology Operations and Concepts

A. Early Technology	*B. Developing Technology*	*C. Proficient*	*D. Advanced*
1.1 BASICS			
A1.10 Demonstrate basic skills for using hardware and applications (e.g., start up and shut down computer system and peripherals, open/close a file, start an application and create a document.)			
A1.1 1 Navigate using scroll bars, arrow keys, special keys, and mouse functionality.			
A1.12 Identify components of a computer system (e.g., Operating system, platform, drives, memory, window). Explain their functions, and use appropriate terminology in speaking about them.	B 1.12 Identify and use basic features of a computer operating system (e.g., format/initialize disks, access information on size and format of a file, create and organize folders on local hard drive and desktop).		
A1.14 Save/backup and retrieve a file to/from the Desktop, hard drive, and/or floppy disk.	B 1.14 Manage files, to save, locate and organize files on local and remote network spaces.	C1. 14 Save (also retrieve, load, and import) documents in different file formats (e.g., RTF, HTML) to facilitate file sharing.	
A1.15 Select a printer and print a document with appropriate orientation within page setup.	B 1.15 Operate peripheral equipment (e.g., scanner, printer, projector).	C1. 15 Use a variety of external peripherals (e.g., digital camera, camcorder, CD-RW, scanner) and connect them to a computer.	
	B 1.16 Resolve basic technical difficulties (e.g., soft reboot, paper jam, ink cartridge replacement).	C1. 16 Resolve commonly occurring technology problems, and use proper terminology for communicating them (e.g., frozen screen, disk error, printing problems).	D1. 16 Troubleshoot and add new hardware.
		C1. 17 Identify, download and use multimedia, graphic, sound and video files.	D1. 17 Identify and use methods for transferring, downloading, and converting graphic, sound, and video files. Use different graphic file formats where appropriate (e.g., PICT, TIFF, JPEG).

Standard 1 - Technology Operations and Concepts (Continued)

A. Early Technology	*B. Developing Technology*	*C. Proficient*	*D. Advanced*
		C1. 18 Install new software from a variety of sources (e.g., CD, downloads, plug-ins and applications) per district policies.	D1. 18 Import/export and link data between spreadsheet, databases and other applications, including presentation applications.
1.2 NETWORK			
A1.20 Connect the cables and cords correctly such that a computer is functional.	B 1.20 Connect a computer to peripheral devices (e.g., printers), a network outlet, and take proper care of the system.		
1.3 WORD PROCESSING			
A1.30 Use basic editing and formatting features of a word processing program (e.g., centering, spacing, fonts and styles, enter and edit text, copy and paste, manipulate fonts, use writing tools and insert clip art.).	B 1.30 Use editing and formatting features (margins, cut and paste, spelling, and page numbers). Insert images (e.g., graphics, clip art) from other files into word-processed documents.		
	B 1.31 Create a report or newsletter using word-processing or desktop publishing software.		
1.4 SPREADSHEET			
	B 1.40 Describe the structure and function of spreadsheet (e.g., cells, rows, columns, and formulas) and apply formatting features, reposition columns and rows.		
	B 1.41 Create an original spreadsheet, entering simple formulas (various number formats, equations, percentages, exponents).	C1.41 Use built-in calculating functions in a spreadsheet application.	
	B 1.42 Interpret spreadsheet information, and produce simple charts from data.	C1.42 Customize formatting of charts or graphs created in spreadsheet. Define and use built-in data functions of a spreadsheet such as sort, filter, find.	
1.5 DATABASE			
	B. 1.50 Define terms (field, table, record etc.) and functions of a database and use it for simple analysis.	C1.50 Perform simple operations in a database (e.g., browse, sort, search, delete, add data, define filed formats, etc.).	D1.50 Design, create, and manipulate an original database.

Standard 1 - Technology Operations and Concepts (Continued)

A. Early Technology	*B. Developing Technology*	*C. Proficient*	*D. Advanced*
1.6 GRAPHICS			
	B 1.60 Create and manipulate graphics using a drawing or painting program (e.g., adjust scale, size, shape).		
1.7 MULTIMEDIA			
	B 1.70 Create a simple multimedia presentation (using PowerPoint, KidPix, etc.) and explain the terminology (slide, transition, etc.)	C1.70 Create a multimedia presentation that includes imported sound and graphic files, tables and a design template.	
1.8 INTERNET			
A1.80 Use correct terminology in speaking about Internet communications (e.g., browser, search engine, online).	B 1.80 Differentiate among browser, email program and Internet service provider.		
A1.81 Access the Internet and identify and use navigation features of browser (e.g., "go," "back," "forward").			
A1.82 Add a Web site to *Favorites* or *Bookmark* it for future reference.	B 1.82 Organize B*ookmark*s or F*avorites* into folders for future reference.		
A1.83 Identify basic elements of a Web site (e.g., URL, hyperlinks, etc.) and use a URL.	B1.83 Identify and use basic search strategies on the Internet.	C1.83 Demonstrate effective search strategies to locate and retrieve electronic information (e.g., use syntax and "Boolean logic operators- and/or terms" correctly).	
		C1.84 Share links among users via email or posting.	
		C1.85 Create a basic Web page.	D1.85 Create and post a Web page per district policy.
1.9 E-MAIL			
A1.90 Create and send a message using email. Retrieve and read email. Reply to sender and forward an email. Save, print and delete an email.	B 1.90 Send an email attachment, open and save on to the desktop.		
	B 1.91 Create an address book in an e-mail program.		

TECHNOLOGY SELF-ASSESSMENT TOOL

Standard 2 - Ethics and Safety

A. Early Technology	*B. Developing Technology*	*C. Proficient*	*D. Advanced*
2.1 GENERAL RULES AND POLICIES			
A2.10 Apply classroom/lab rules for responsible use of technology.			
A2. 11 Explain and comply with acceptable use policy in your district and describe the consequences.			
2.2 EQUITY			
A2.20 Explain the importance of sharing technology resources equitably among all students.	B2.20 Ensure equitable access to technology resources for all students in the class.		
2.3 DIVERSE POPULATION (AT & UDL)			
A2.30 Discuss the basic concept of assistive technologies and Universal Design for Learning (UDL), including portable word processors.	B.2.30 Use basic assistive technology resources. For example, change text size or make templates in a word processor, use text-to-speech features, change mouse controls, use on-screen calculators.	C2.30 Use specific assistive technology software (e.g., programs that use pictures/symbols with words, talking word processing, or word prediction).	D2.30 Manage assistive technology equipment and install peripherals for diverse learners (e.g., alternate keyboards, voice recognition systems and scanners with OCR software).
2.4 COPYRIGHTS, LICENSING			
A2.40 Explain copyrights as applied to technology use in education, the workplace and society.	B2.40 Cite electronic sources correctly in accordance with copyright law, explain and model this in the classroom.		
A2.41 Follow appropriate licensing and documentation for all software used.	B2.41 Explain and demonstrate ethical and legal behavior in copying/downloading files, applications, and media (Internet).		
	B2.42 Ensure responsible uses of technology by students: a. including intellectual property b. copyright laws, c. effective use of resources and d. environmental concerns.		
2.5 AUTHENTICITY			
A2.50 Explain how media and technology can be misused to distort or exaggerate information.A2.50	B2.50 Validate a Web site for authenticity (e.g., find site sponsor, author, date the site was last updated, etc.)		

TECHNOLOGY SELF-ASSESSMENT TOOL

Standard 2 - Ethics and Safety (Continued)

A. Early Technology	*B. Developing Technology*	*C. Proficient*	*D. Advanced*
2.6 VIRUSES			
A2.60 Explain potential problems viruses create and practical methods of prevention (including exercising caution in opening e - mail attachments from unknown sources).			
2.7 SAFETY			
2.70 Follow the proper district/school procedures in the event of technical difficulties.			
A2.72 Explain the dangers of chat rooms and other electronic communications such as instant messaging.		C2.72 Address situations where inappropriate sites are accessed, and contact proper district personnel to block such sites.	
2.8 PHYSICAL/ERGONOMICS			
A2.80 Evaluate the proper physical setting for technology use (ergonomics).		C2.80 Demonstrate and teach students the issue of ergonomics (e.g., repetitive stress injuries) and how to use equipment safely.	

TECHNOLOGY SELF-ASSESSMENT TOOL

Standard 3 - Teaching & Learning with Technology

A. Early Technology	*B. Developing Technology*	*C. Proficient*	*D. Advanced*
3.1 PLANNING AND DESIGNING LEARNING ENVIRONMENTS AND EXPERIENCES			
A3.10 Discuss current research on teaching and learning with technology in order to plan learning environments and experiences.	B3.10 Design and develop lessons and activities that integrate technology in a variety of instructional settings for all students.		
A3.1 1 Use technology to gather curriculum-specific information from CD-ROMs, Web sites and/or automated card catalogue.	B3.1 1 Identify and locate technology resources including online curriculum resources (Massachusetts Curriculum Frameworks and/or district curriculum guides) for planning.	C3.1 1 Evaluate technology resources, including online resources for accuracy and suitability.	
		C3.12 Plan for the management of technology resources within the context of learning activities (schedule use of computer lab, wireless laptops, SmartBoard, etc.).	
3.2 TEACHING, LEARNING, AND THE CURRICULUM			
A3.20 Integrate technology into the curriculum of one's subject and/or grade level with assistance of a coach, mentor or other staff member.	B3.20 Facilitate technology-enhanced lessons that address content standards and student technology standards.	C3.20 Use technology to support learner-centered strategies that address all students.	D3.20 Apply technology to develop students' higher order skills and creativity.
	B3.21 Manage student technology activities to optimize learning with available resources (e.g., in a one-computer classroom, a computer lab, or with portable/wireless technology).	C3.21 Manage student learning experiences that integrate effective uses of technology to meet a variety of learning styles.	
		C3.22 Use the Internet for curriculum development and instruction (e.g., Web Quests, classroom web pages)	D3.22 Create web pages for instruction and communication.
	B3.23 Use appropriate technology to differentiate instruction (multimedia presentations, concept maps) for all learners.	C3.23 Use appropriate technology tools to enhance one's own curriculum, as applicable. This may include: projectors, wireless laptops, handhelds, environmental probes, sensors, robotics, dynamic geometric software, and measuring devices.	D3.23 Use specialized technology tools for problem solving, decision-making, and creativity (e.g., simulation software, environmental probes, computer-aided design, geographic information systems, dynamic geometric software, graphing calculators, art and music composition software).

Standard 3 - Teaching & Learning with Technology (continued)

	B3.30 Apply technology in assessing student learning of subject matter using a variety of district, school or individual assessment tools and strategies (e.g., TestWiz, grading programs or progress spreadsheets). _____	C3.30 Use technology resources to collect and analyze data, interpret results, and communicate findings to improve instructional practice and maximize student learning. C3.3 1 Identify and evaluate developing technologies as they relate to one's subject area, grade level and student population.	D3.31 Routinely and rigorously identify, evaluate, and apply emerging technologies as they relate to teaching and learning.
3.4 PRODUCTIVITY AND PROFESSIONAL PRACTICE			
A3.40 Use email to communicate with teachers and other professionals about curriculum content and procedures.			
A3.41 Use word processing to support teaching and learning (e.g., letters home to parents, course syllabi, flyers, worksheets, students' stories, etc.)	B3. 41 Use application programs to organize curriculum-specific information/data into charts, tables and diagrams (spreadsheets, databases, etc.).	C3.41Manipulate data using charting tools and graphic organizers (e.g., concept mapping, and outlining software) to connect ideas and organize information.	D3.41 Combine information from different applications (e.g., a chart imported from a spreadsheet into a word-processed report can be linked to update automatically when the data is changed in the spreadsheet) to enhance/clarify communication of information.
	B3.42 Create multimedia presentations to communicate curriculum content.		D3.42 Present information, ideas, and results of work using the most appropriate communications technologies (e.g., multimedia presentations, Web pages, digital videotapes, desktop-published documents).
	B3.43 Integrate results of electronic research into classroom instruction (with proper citations), as appropriate to the grade level.	C3.43 Use electronic conferencing tools such as Internet bulletin boards as in VES and MyBPS.	D3.43 Use electronic communications to enhance teaching and learning, (e.g. listserv, electronic classrooms, and interactive video).
A3.44 Identify personal technology professional development needs.	B3.44 Locate and enroll in appropriate technology professional development activities offered by the district, online or local college/university. _____	C3.44 Apply technology professional development activities such as multimedia presentations, Web Quests, and lessons in the classroom.	D3.44 Design and deliver effective staff development in technology and its integration in curriculum.

Appendix B

Massachusetts Recommended PreK-12 Instructional Technology Standards:
http://www.doe.mass.edu/edtech/standards/itstand.pdf
Standard 1 - Demonstrate proficiency in the use of computers and applications as well as an understanding of concepts underlying hardware, software, and connectivity

Standard 2 - Demonstrate responsible use of technology and an understanding of ethics and safety issues in using electronic media

Standard 3 - Demonstrate ability to use technology for research, problem-solving, and communication. Students locate, evaluate, collect, and process information from a variety of electronic sources. Students use telecommunications and other media to interact or collaborate with peers, experts, and other audiences.

Alignment to the Standards:
1. Technology Operations & Concepts
Demonstrate proficiency in the use of computers and applications as well as an understanding of concepts underlying hardware, software, and connectivity.
2. Ethics & Safety
Demonstrate responsible use of technology and an understanding of ethics and safety issues in using electronic media.
3. Teaching & Learning with Technology
Demonstrate ability to use technology for research, problem-solving, and communication. Implement "technology enhanced instructional strategies to support the needs of diverse learners". Locate, evaluate, collect, and process information from a variety of electronic sources for integration into the curriculum. Use telecommunications and other media to interact or collaborate with peers, experts, and other audiences. Use and apply technology resources to assess student subject matter learning. "Use technology resources to collect and analyze data, interpret results, and communicate findings to improve instructional practice and maximize student learning."

ISTE National Technology Standards
http://cnets.iste.org/teachers/t_stands.html

1. Technology Operations and Concepts
2. Planning and Designing Learning Environments and Experiences
3. Teaching, Learning and the Curriculum
4. Assessment and Evaluation
5. Productivity and professional practice
6. Social Ethical, Legal and Human Issues

Massachusetts STaR Chart (School Technology and Readiness Chart) Levels of Progress:
http://www.doe.mass.edu/boe/sac/edtech/star.html
A. Early Technology
B. Developing Technology
C. Proficient
D. Advanced

ADMINISTRATOR
TECHNOLOGY SELF-ASSESSMENT TOOL

Introduction

This sample administrator technology self-assessment tool is the collaborative effort of the Massachusetts Department of Education and the state's Educational Technology Advisory Council (ETAC). The purpose of developing this sample tool is to assist superintendents, principals, and other administrators in their leadership role of implementing appropriate technology in their schools. This tool was developed by adapting the Technology Standards for School Administrators developed as part of the National Educational Technology Standards (NETS). NETS is an initiative of the International Society for Technology Education (ISTE). The NETS Technology Standards for School Administrators are:

I. Leadership and Vision
II. Learning and Teaching
III. Productivity and Professional Practice
IV. Support, Management, and Operations
V. Assessment and Evaluation
VI. Social, Legal, and Ethical Issues

We collapsed the six NETS standards into the following three strands for the development of this self-assessment tool.

Massachusetts Technology Self-Assessment Tool for Administrators	**Corresponding NETS Technology Standards for School Administrators**
1: Basic Technology Skills	Standard III
2: Leadership Skills	Standard I, II, IV, V
3: Social Legal and Ethical Issues	Standard VI

We hope that this sample tool will help administrators make appropriate decisions regarding their own professional development needs and that it will assist them in their leadership role in their schools and districts.

1. Basic Technology Skills:
Educational leaders demonstrate technology proficiency and apply technology to enhance their professional practice and to increase their own productivity and that of others.

I know how to		*Perform Basic Operations*
	1.1	Start up and shut down a computer system and peripherals; open and close files; navigate with scroll bars, mouse, and special keys.
	1.2	Manage files: save, locate, and organize files on a local computer and remote network spaces.
	1.3	Resolve commonly occurring technology problems (e.g. printer jam, ink cartridge replacement, and frozen computer screen).
	1.4	Operate and connect peripheral devices, such as printers and projectors.
		Use Productivity Tools
	1.5	Use the editing and formatting features of a word processing program (e.g., centering, spacing, fonts, margins, copy and paste, spell check).
	1.6	Create an original spreadsheet, entering simple formulas (e.g. various number formats, sums, and percentages).
	1.7	Use functions of a spreadsheet such as sort, filter, find, and calculate.
	1.8	Perform simple operations in a database (e.g. browse, sort, search, delete, add data, and define field formats).
	1.9	Create a simple multimedia presentation using a design template.
		Use Email
	1.10	Create and send email messages: open, save, print, and delete messages.
	1.11	Send, receive, open, and save files attached to email messages. Understand the risks associated with opening attachments from unknown sources.
	1.12	Create an address book in an email program.
		Use the Internet
	1.13	Access the Internet and use search strategies to locate information such as curriculum standards, grant information, educator licensing (ELAR), Virtual Education Space (VES), MCAS data, etc.
	1.14	Bookmark web sites or add them to Favorites and organize them into folders for future reference.
	1.15	Conduct research on the web.
		Use Technology for Professional Practice
	1.16	Create a report or complete a form using a word processing application.
	1.17	Use email to communicate with students, staff, parents, and the community.
	1.18	Use databases and spreadsheets for analysis and decision-making.
	1.19	Use technology for sustained, job-related professional development.
	1.20	Use presentation tools to communicate with students, staff, parents and the community.

	1.21	Use computer applications for record keeping, data analysis, and research.

2. Leadership Skills:

Educational leaders inspire a shared vision and plan for comprehensive integration of technology in their schools. They understand that technology can support productive systems for teaching and learning, assessment, evaluation, and administration; and they ensure the implementation of their technology plan. The integration of technology includes curricular design, instructional strategies and learning environments that maximize teaching and learning.

As a leader, I . . .		*Provide Leadership and Vision*
	2.1	Oversee and direct the development of a technology plan that is aligned with the school improvement plan.
	2.2	Communicate the goals, objectives, and needs of the technology plan to all staff members, the school committee, and the public.
	2.3	Ensure that systems are in place for gathering data to formatively evaluate the technology plan and to use this data for decision-making.
	2.4	Search for emerging technologies and evaluate their potential uses in the district.
	2.5	Maintain currency and competency in the use of technology in order to model these practices for the staff.
	Lead in the Use of Technology in Teaching and Learning	
	2.6	Recognize, identify, and promote exemplary uses of technology in instruction.
	2.7	Provide for equitable access (across the district and within school buildings) to technologies that enhance learning and facilitate productivity for staff and students.
	2.8	Provide high quality professional development opportunities and ongoing support to promote the use of technology in instruction and to increase student technology literacy.
	2.9	Provide for assistive technologies and related professional development to meet the diverse needs of individual students. Ensure that staff understand how universal design strategies can promote access to the general curriculum for all students.
	Provide Support, Management and Operations	
	2.10	Make informed budget decisions on the financial needs of the technology plan, including adequate staffing and other resources needed to support the technology infrastructure.
	2.11	Leverage federal, state, local, and private resources to meet the objectives of the technology plan.
	2.12	Develop and implement policies to ensure compatibility of the district's technology resources.

	2.13	Ensure that the schools have adequate technology support to maintain the equipment in a timely manner.

	Lead in the Use of Technology for Assessment and Evaluation	
	2.14	Assess and evaluate technology resources and uses for teaching and learning, communication, and productivity.
	2.15	Assess student and staff technology literacy and provide instruction and professional development based on the results of the analysis.
	2.16	Support the use of technology to collect and analyze data to improve instructional practice and student learning.
	2.17	Support the use of technology to assess and manage administrative and operational systems.

3. Social, Legal, and Ethical Issues:

Educational leaders understand the social, legal, and ethical issues related to technology and model responsible decision-making related to these issues.

As a leader, I . . .		
	3.1	Establish and maintain technology acceptable use policies, addressing issues such as online safety, access to inappropriate sites on the Internet, copyright law, etc. Communicate these policies to staff and students and ensure that they adhere to these policies.
	3.2	Ensure that staff and students adhere to the Children's Internet Protection Act (CIPA) regulations.
	3.3	Establish and implement a policy to ensure proper licensing and documentation for all software used.
	3.4	Establish policies and procedures to protect the rights and confidentiality of students and staff.
	3.5	Promote healthy and environmentally safe practices in the use of technologies.
	3.6	Provide equitable access to technology resources so that every student engages in technology-rich learning experiences.

Massachusetts Department of Education

Recommended Criteria for Evaluating Instructional Technology Materials

Evaluating instructional technology materials can be a challenging task. A wide variety of products is available. These products are constantly evolving, and it can sometimes be difficult to find materials that match the state's curriculum frameworks and the district's local curricula. This checklist provides some guidelines to aid in the evaluation and selection of instructional technology materials.

To make successful decisions about what to purchase, districts are encouraged to involve in the selection process those who will be using the products. This includes teachers, students, parents, heads of the curriculum development, technology, and business departments, and others. By doing so, districts can ensure that the materials meet educational needs while also fitting within the local budget and infrastructure.

In addition to the attached checklist, there are many resources available that can be accessed free of charge through the Internet to help in making decisions. It is recommended that this guide be used in conjunction with the other Massachusetts Department of Education documents and standards listed below.

- "Criteria for Evaluating Instructional Materials and Programs in Reading"
  http://www.doe.mass.edu/read/mrfp/criteria.pdf

- Criteria for Evaluating Instructional Materials and Programs
  http://www.doe.mass.edu/frameworks/math/2000/append2.html

- Criteria for Evaluating Instructional Materials and Programs in Science and Technology/Engineering
  http://www.doe.mass.edu/frameworks/scitech/2001/Appendices/ap7.html

- Massachusetts Recommended PreK-12 Instructional Technology Standards
  http://www.doe.mass.edu/edtech/standards/itstand.pdf

- Massachusetts Curriculum Frameworks
  http://www.doe.mass.edu/frameworks/current.html

	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Applicable
I. Academic Content					
Aligns with the English Language Arts Strands and Standards					
Aligns with the Mathematics Strands and Standards					
Aligns with the Science and Technology/Engineering Strands and Standards					
Aligns with the History and Social Science Strands and Standards					
Aligns with the Arts Framework Strands and Standards					
Aligns with the Foreign Language Strands and Standards					
Aligns with the Comprehensive Health Strands and Standards					

	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Applicable
II. Materials Development or Usage					
Is based on scientific research					
Rates highly in current peer usage or local studies					
Rates highly in published, professional reviews					
Demonstrates increased student achievement according to scientific research					
Facilitates learning that could not otherwise be achieved					
Facilitates learning that is difficult without technology					
Provides learning opportunities otherwise unavailable in current educational settings					

	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Applicable
III. Instructional Features					
Contain easily understandable directions for teacher and student					
Are easily accessible for auditory learners					
Are easily accessible for visual learners					
Are easily accessible for hands-on learners					
Are easily accessible for English language learners and fit within state and federal laws and regulations					
Are easily accessible for students with disabilities and fit within state and federal laws and regulations					
Use assessments to tailor the presentation to each student's skill level					
Allow/encourage students to exhibit previously learned material by recalling facts, terms, basic concepts, and answers					
Contain a variety of exercises to improve comprehension and knowledge of content					
Include effective feedback for students					
Include appropriate adjustment to grade level of the student					
Include view and print in-depth analysis of student progress					
Align with the Massachusetts Professional Standards for Teachers (603 CMR 7.08)					
Meet recommended Instructional Technology Standards					

	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Applicable
IV. Product specifications, qualities, and/or costs					
Allow for review of a fully functional demo version for testing of product capability, usability, and compatibility within current infrastructure					
Demonstrate proven industry record for product reliability and value					
Take into consideration cost of the product over its useful lifetime, including but not limited to software licenses, updates, training materials, maintenance, and other options that may be needed					
Allow for easy installation on Windows, Macintosh, or whatever operating system the district, school, or classroom uses					
Show no known conflicts with current software in use					
Are compatible with hardware and peripherals that the district, school, or classroom uses					
Allow for easy maintenance or updates through patches or upgrades					
Do not pose any security issues or compromise any sensitive or confidential data (keep in mind cookie settings in browsers, server setting changes, and port or security requirements)					
Comply with CIPA requirements (if product requires online usage)					
Are free of inappropriate or derogatory material					
Are fully compatible with the major browsers available and current installed versions, if application is browser dependent					
Demonstrate reliable accessibility through a Local Area Network (LAN)					
Demonstrate reliable accessibility through dial-up connection					
Demonstrate reliable accessibility through broadband connection					
Demonstrate reliable and full accessibility to content and services in students' or teachers' homes via networking or affordable home edition of software					
Demonstrate accessibility through CD-ROM, DVD-ROM, hard drive, or other media in case of Internet or network failure					

	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Applicable
V. Vendor supplemental services					
Show high level of reliability in customer support					
Facilitate easy integration into the districts' local curriculum					
Include high-quality orientation or professional development free of charge or at an affordable price					
Include effective, periodic train-the-trainer opportunities so that district or school staff can provide ongoing, high quality professional development					
Include ongoing, high quality professional development or other help through the vendors' or other websites					
Include other supplementary professional development materials (e.g., training manuals, videos, etc.)					
Include effective training in usage of the materials for students					

	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Applicable
and parents					
Include effective user help within a tutorial or other troubleshooting features in the product					
Include other help or troubleshooting free of charge or at an affordable price by person, website, e-mail, or phone during class hours and while teachers work offsite					
Include effective tracking of the level of usage of the materials by teachers					
Include effective tracking of the level of usage of the materials by students					
Allow for feedback on quality and effectiveness of the product that can be easily gathered and analyzed					

Appendix B